

CLAIMS

1 A laundry detergent composition comprising an organic
5 surfactant, and a hydrophobically modified vinyl pyrrolidone
polymer which is a copolymer having a vinyl pyrrolidone
backbone and pendant hydrophobic side chains comprising
alkyl chains containing from 4 to 20 carbon atoms the
polymer being present in an amount effective to improve
10 detergency and/or antiredeposition.

2 A detergent composition as claimed in claim 1, wherein
the polymer has pendant hydrophobic side chains derived from
olefins containing from 4 to 20 carbon atoms.

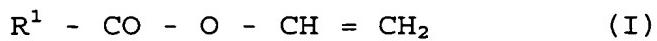
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3 A detergent composition as claimed in claim 1, wherein
the polymer contains from 10 to 90 mole% of vinyl
pyrrolidone units and from 10 to 90 mole% of hydrophobic
20 comonomer units.

4 A detergent composition as claimed in claim 1, wherein
the polymer has pendant hydrophobic side chains which are
alkyl chains having from 4 to 20 carbon atoms linked to the
25 vinylpyrrolidone backbone by an ester linkage.

5 A detergent composition as claimed in claim 1, wherein
the pendant hydrophobic side chains of the copolymer are
derived from a vinyl ester of the general formula I:

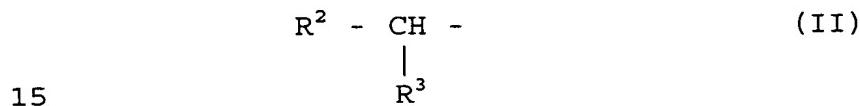
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wherein R¹ is a linear or branched alkyl group having from 4 to 16 carbon atoms.

5 6 A detergent composition as claimed in claim 5, wherein in the general formula I R¹ is a linear or branched alkyl group having from 6 to 10 carbon atoms.

10 7 A detergent composition as claimed in claim 6, wherein in the general formula I R¹ is a group of the formula II



wherein R² is a linear alkyl group having from 2 to 8 carbon atoms and R³ is a methyl or ethyl group.

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8 A detergent composition as claimed in claim 1, wherein the polymer contains units derived from vinyl 2-ethylhexanoate.

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9 A detergent composition as claimed in claim 1, wherein the polymer contains from 90 to 99.5 wt% of vinyl pyrrolidone monomer units and from 0.5 to 10 wt% of vinyl 2-ethylhexanoate monomer units.

10 A detergent composition as claimed in claim 1, which contains from 0.5 to 5 wt%, preferably from 1 to 4 wt%, of the hydrophobically modified vinyl pyrrolidone polymer.

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11 A detergent composition as claimed in claim 1 which comprises:

(a) from 5 to 60 wt%, preferably from 10 to 40 wt%, of organic surfactant,

10 (b) optionally from 5 to 80 wt%, preferably from 10 to 60 wt%, of detergency builder,

(c) from 0.5 to 5 wt%, preferably from 1 to 4 wt%, of the hydrophobically modified vinyl pyrrrolidone polymer,

(d) optionally other detergent ingredients to 100 wt%.

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12 A detergent composition as claimed in claim 1 with a pH of from 7.0 to 11.0, preferably 7.5 to 10.5

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13 A detergent composition as claimed in claim 1, wherein the organic surfactant (a) comprises a sulphonate anionic surfactant.

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14 A detergent composition as claimed in claim 13, wherein the organic surfactant (a) comprises linear alkylbenzene sulphonate.

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15 A detergent composition as claimed in claim 14, which contains from 3 to 30 wt%, preferably from 10 to 25 wt%, of linear alkylbenzene sulphonate.

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16 A detergent composition as claimed in claim 1, which comprises from 5 to 80 wt%, preferably from 10 to 60 wt%, of detergency builder selected from sodium tripolyphosphate, zeolites, sodium carbonate and mixtures thereof.

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17 Use of a hydrophobically modified vinyl pyrrolidone copolymer to improve the detergency and/or antiredeposition of a laundry detergent composition.

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